Amendments to the Claims

Please add new Claims 38 and 39. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Original) An apparatus for providing information about operation of a spray device, the apparatus comprising:

an adapter assembly configured to be coupled to a movable part of a spray device; a mounting assembly configured to be coupled to a stationary part of the spray device;

a transducer coupled to the mounting assembly or the adapter assembly; and a linkage, adapted to extend between the mounting assembly and the adapter assembly, in operational relationship with the transducer to enable the transducer to indicate a mechanical relationship between the movable and stationary parts of the spray device corresponding to operation of the spray device.

- 2. (Original) The apparatus according to claim 1 wherein the mounting assembly includes a bearing and shaft assembly coupling the adapter assembly to the mounting assembly.
- 3. (Original) The apparatus according to claim 2 wherein the bearing and shaft assembly substantially maintains alignment between the adapter assembly and the mounting assembly in non-actuation axes.
- 4. (Original) The apparatus according to claim 1 further including a base assembly adapted to couple to the mounting assembly, the base assembly including a foot assembly with a footprint that supports the spray device in a vertical relationship with the foot assembly.

- 5. (Original) The apparatus according to claim 4 wherein the apparatus and spray device has a predetermined weight for use on a weight measuring scale sensitive enough to measure a change in fluid ejected by the spray device in a single discharge.
- 6. (Original) The apparatus according to claim 5 wherein the total weight of the apparatus and spray device is less than or equal to 200 grams.
- 7. (Original) The apparatus according to claim 1 wherein the transducer is a position sensor.
- 8. (Original) The apparatus according to claim 7 wherein the position sensor is a potentiometer.
- 9. (Original) The apparatus according to claim 8 wherein the linkage is a spring loaded wire integrally associated with the potentiometer.
- 10. (Original) The apparatus according to claim 1 wherein the spray device is a nasal spray bottle.
- 11. (Original) The apparatus according to claim 1 wherein the spray device is a Metered-Dose Inhaler (MDI).
- 12. (Original) The apparatus according to claim 1 wherein the adapter assembly is configured to interface with an automated actuation system that operates the spray device in an automated manner.
- 13. (Original) The apparatus according to claim 12 wherein the transducer indicates the mechanical relationship in a format usable by the automated actuation system.

- 14. (Original) The apparatus according to claim 1 further including a data processing system coupled to the transducer that captures indications of the mechanical relationship between the movable part and the stationary part.
- 15. (Original) The apparatus according to claim 14 wherein the data processing system includes program instructions that automatically calculate parameters in position, velocity, or acceleration corresponding to operation of the spray device.
- 16. (Original) The apparatus according to claim 15 wherein the instructions include a routine that calculates velocity or acceleration data from position measurements using a least squares technique.
- 17. (Original) The apparatus according to claim 15 wherein the parameters include at least one of the following: maximum position displacement, hold time, maximum actuation velocity, maximum return velocity, maximum actuation acceleration, and maximum return acceleration.
- 18. (Original) The apparatus according to claim 14 wherein the data processing system includes a signal conditioner, data sampler, and amplifier, wherein the signal conditioner conditions a signal effected by the transducer prior to the data sampler and amplifier operating on the signal.
- 19. (Original) A method for providing information about operation of a spray device, the method comprising:

enabling a linkage in operational relationship with a transducer associated with a spray device, including a movable part and a stationary part, to move as a function of a mechanical relationship between the movable part and the stationary part; and

by the transducer, indicating the mechanical relationship between the movable and stationary parts of the spray device corresponding to operation of the spray device.

- 20. (Original) The method according to claim 19 further including providing components adapted to attach to the movable part and the stationary part and facilitating coupling between the components.
- 21. (Original) The method according to claim 20 further including substantially maintaining alignment in non-actuation axes between the movable part and the stationary part.
- 22. (Original) The method according to claim 19 further including supporting the spray device in a vertical relationship with a surface by way of at least one of the components.
- 23. (Original) The method according to claim 22 wherein supporting the spray device in a vertical relationship with the surface includes supporting an assembly including the spray device on a weight measuring scale sensitive enough to measure a change in fluid ejected by the spray device in a single discharge.
- 24. (Original) The method according to claim 23 wherein the assembly weighs less than or equal to 200 grams.
- 25. (Original) The method according to claim 19 wherein indicating the mechanical relationship includes outputting position information.
- 26. (Original) The method according to claim 25 wherein indicating the mechanical relationship includes making real-time electrical resistance measurements.
- 27. (Original) The method according to claim 26 wherein enabling the linkage to move as a function of the mechanical relationship between the movable part and the stationary part includes applying a constant force to the linkage.
- 28. (Original) The method according to claim 19 wherein the spray device is a nasal spray bottle.

- 29. (Original) The method according to claim 19 wherein the spray device is a Metered-Dose Inhaler (MDI).
- 30. (Original) The method according to claim 19 further including providing a component adapted to interface the spray device to an automated actuation system that operates the spray device in an automated manner.
- 31. (Original) The method according to claim 30 further including providing the mechanical relationship between the movable and stationary parts of the spray device in a format usable by the automated actuation system.
- 32. (Original) The method according to claim 19 further including capturing a signal corresponding to operation of the spray device.
- 33. (Original) The method according to claim 32 further including automatically calculating parameters in position, velocity, or acceleration based on the signal corresponding to the operation of the spray device.
- 34. (Original) The method according to claim 33 further including calculating velocity or acceleration data from position information using a least squares technique.
- 35. (Original) The method according to claim 33 further including calculating parameters including at least one of the following: maximum position displacement, hold time, maximum actuation velocity, maximum return velocity, maximum actuation acceleration, or maximum return acceleration.
- 36. (Original) The method according to claim 32 further including conditioning the signal prior to sampling or amplifying the signal.

37. (Original) An apparatus for providing information about operation of a spray device, the apparatus comprising:

means for enabling a linkage between a stationary part of a spray device and a movable part of the spray device in a manner allowing the linkage to move as a function of a mechanical relationship between the movable and stationary parts; and

means for indicating the mechanical relationship corresponding to operation of the spray device.

- 38. (New) The apparatus according to claim 12 wherein the automated actuation system includes a compression plate assembly connected to a drive plate assembly, the compression plate assembly pressing upward on the stationary part of the spray device in response to upward force by the drive plate assembly.
- 39. (New) The apparatus according to claim 38 wherein the compression plate assembly includes a force transducer positioned to sense actuation force of the spray device caused by the upward force applied to the compression plate assembly by the drive plate assembly.